



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,488	11/20/2003	Ezequiel Cervantes	TUC920030138US1	2510

49080 7590 12/14/2005

DALE F. REGELMAN
4231 S. FREMONT AVENUE
TUCSON, AZ 85714

EXAMINER

DARE, RYAN A

ART UNIT PAPER NUMBER

2186

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,488

Applicant(s)

CERVANTES ET AL.

Examiner

Ryan Dare

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/20/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 3/19/04.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 175, 176, 177, 178, 180, 190, and 194.
2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the N mentioned in line 11 is the same number N mentioned in line 8. If it is the same, line 8 should contain the phrase "wherein (N) is greater than or equal to 1" instead of line 11.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent; except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Swank, US PG Pub 2003/0172239.

6. With respect to claim 1, Swank teaches a method to control access to logical volumes disposed in an information storage and retrieval system, comprising the steps of:

providing an information storage and retrieval system comprising a plurality of logical volumes, in paragraphs 187 and 188, with reference to fig. 1;

providing a plurality of host computers, wherein each of said plurality of host computers is capable of communicating with said information storage and retrieval system, in par. 186, with reference to fig. 1;

forming (N) host computer groups, in fig. 33, where N equals 3;

assigning one or more of said plurality of logical volumes to the (i)th host computer group, wherein (i) is greater than or equal to 1 and less than or equal to (N). in fig. 33, where Host 1 and Host 2 are assigned to Host Group A, Host 3, Host 4 and Host 5 are assigned to Host Group B and Host 6 forms its own host group;

forming (N) logical volume groups, wherein (N) is greater than or equal to 1, in paragraph 528. Each group of host computers contains a file system which constitutes a group of logical volumes;

assigning one or more of said plurality of logical volumes to the (i)th logical volume group, wherein (i) is greater than or equal to 1 and less than or equal to (N), in par. 528. LUNs are assigned to a LUN group, which are in turn assigned to a file system associated with each host group;

maintaining a database associating the (i)th host group with the (i)th logical volume group, in par. 533;

permitting each of said one or more host computers assigned to the (i)th host computer group to access each logical volume comprising said (i)th logical volume group, in par. 45;

wherein each of said plurality of host computers assigned to (i)th host computer group is not assigned to any other of the (N) host computer groups, and wherein each of said logical volumes assigned to the (i)th logical volume group is not assigned to any other of the (N) logical volume groups, in par. 45.

7. With respect to claim 2, Swank teaches the method of claim 1, wherein one or more of said (N) host computer groups are owned by a first person, and wherein one or more of said (N) host computer groups are owned by a second person, wherein said first person differs from said second person, in fig. 2 and paragraphs 195-196.

8. With respect to claim 3, Swank teaches the method of claim 1, further comprising the step of providing a storage area network, wherein said storage area network is

capable of communicating with said information storage and retrieval system and with each of said plurality of host computers, in fig. 1, SAN 16.

9. With respect to claim 4, Swank teaches the method of claim 1, further comprising the steps of:

forming a plurality of unique identifiers, in par. 346, where the name is the unique identifier;

assigning a different one of said plurality of unique identifiers to each of said plurality of host computers, in par. 346, where each host has a name that can be looked up using a GUI.;

associating in said database each of said plurality of unique identifiers with one of said (N) host computer groups, in par. 533.

10. With respect to claim 5, Swank teaches the method of claim 4, further comprising the steps of:

requesting by one of said plurality of host computers to access a designated logical volume, in paragraphs 435-437;

determining that said requesting host computer is assigned to the (j)th host computer group, wherein (j) is greater than or equal to 1 and less than or equal to (N), in paragraphs 435-437, where it is determined if a host computer is in a particular zone, based on its adapter;

determining if said designated logical volume is assigned to the (j)th logical volume group, in paragraphs 435-437, where, based on the adapter the host has, it is determined which storage devices the adapter can see;

operative if said designated logical volume is assigned to the (j)th logical volume group, permitting said requesting host to access said designated volume, in paragraphs 435-437, where if a host can see a storage device, it is permitted to access it;

operative if said designated logical volume is not assigned to the (j)th logical volume group, denying said requesting host access to said designated volume, in paragraphs 435-437, where if a host cannot see a storage device, it cannot access it.

11. With respect to claim 6, Swank teaches the method of claim 5, further comprising the steps of:

establishing the unique identifier assigned to said requesting host computer, in par. 346, where the unique identifier is the host's name;

determining that the requesting host computer is assigned to the (j)th logical volume group, in paragraphs 435-437, where a host computer can only see logical volume groups that its assigned to.

12. With respect to claim 7, Swank teaches the method of claim 1, further comprising the steps of:

receiving a request to assign one or more host computers to the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N), in par. 539, and fig. 34, where the manager can assign or unassign hosts and LUNs.

assigning said one or more host computers to the (k)th logical volume group, in par. 539, and fig. 34, where the manager can assign or unassign hosts and LUNs.

13. With respect to claim 8, Swank teaches the method of claim 1, further comprising the steps of:

receiving a request to unassign one or more host computers from the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N), in par. 539, and fig. 34, where the manager can assign or unassign hosts and LUNs.

unassigning said one or more host computers from the (k)th logical volume group, in par. 539, and fig. 34, where the manager can assign or unassign hosts and LUNs.

14. With respect to claim 9, Swank teaches the method of claim 1, further comprising the steps of:

receiving a request to unassign one or more host logical volumes from the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N), in par. 539, and fig. 34, where the manager can edit the field to assign or unassign LUNs.

unassigning said one or more logical volumes from the (k)th logical volume group, in par. 539, and fig. 34, where the manager can edit the field to assign or unassign LUNs.

15. With respect to claim 10, Swank teaches the method of claim 1, further comprising the steps of:

receiving a request to assign one or more host logical volumes to the (k)th logical volume group, wherein (k) is greater than or equal to 1 and less than or equal to (N), in fig. 35.

assigning said one or more logical volumes to the (k)th logical volume group, in fig. 35.

assigning identifiers to said one or more logical volumes newly-assigned to the (k)th logical volume group, in fig. 35, reference numeral 312.

16. With respect to claims 11-20, Applicant claims an article of manufacture comprising a computer useable medium having computer readable program code that performs the method of claims 1-10, and is therefore rejected using similar logic as claims 1-10.

17. With respect to claims 21-26, Applicant claims a computer program product usable with a programmable computer processor having computer readable program code that performs the method of claims 1-6, and is therefore rejected using similar logic as claims 1-6.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Dare whose telephone number is (571)272-4069. The examiner can normally be reached on Mon-Fri 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571)272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2186

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ryan A. Dare
December 9, 2005



MATTHEW D. ANDERSON
PRIMARY EXAMINER